IDS-5042/5042+

IDS-5042 / 5042+

▶ Industrial 4-port secure serial to Ethernet device server with 4xRS-232/422/485 and 2x10/100Base-T(X)

Features

- Operating Modes : Virtual Com, Serial Tunnel, TCP Server, TCP Client, UDP
- Redundant multiple host devices :
  5 host devices : Virtual COM, TCP Server, TCP Client mode
  4 IP ranges : UDP
- NAT Pass-Through: the user can manage IDS-5042/5042+ through NAT router
- Security : SSL data encryption; secured management by HTTPS and SSH
  IP Access : IP White List
- Internet Communication : PPPoE authentication
- Update DNS Hostname : DDNS
- Dual redundant Ethernet port support redundant mode
  (Recovery time < 10ms)
- Ethernet switch mode enable Daisy Chain
- Event Warning by Syslog, Email, SNMP trap, Relay and Beeper
- Configurable by Web-based and Windows utility (DS-Tool)
- Various Windows O.S. supported : Windows NT/2000/ XP/ 2003/ VISTA(32/64bit)/Windows7(32/64bit)
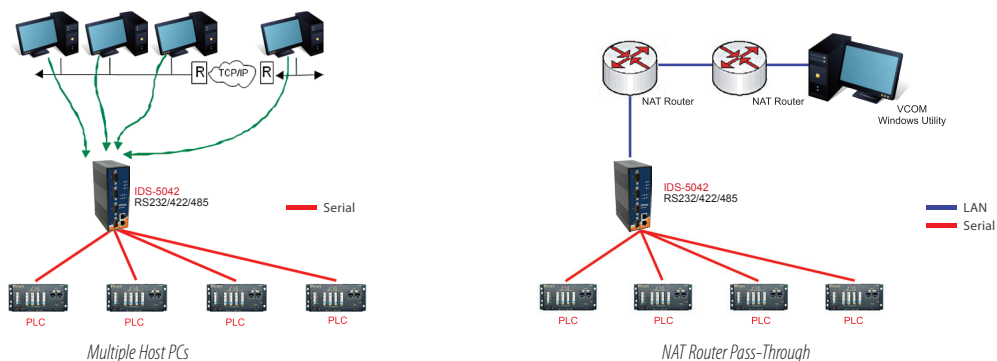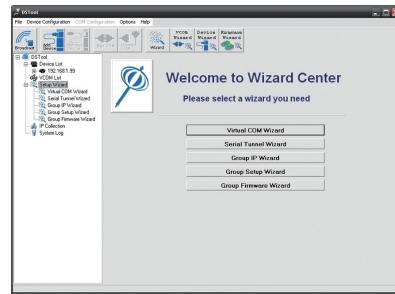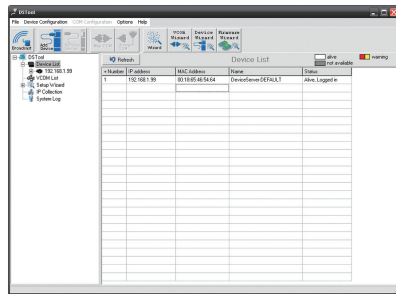- 1KV isolation for PoE P.D. port of IDS-5042+

SSL | **PoE IEEE802.3af P.D.** | **Redundant PWR** | **Temperature -10~70°C**
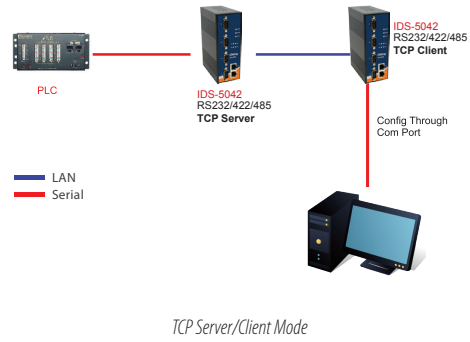
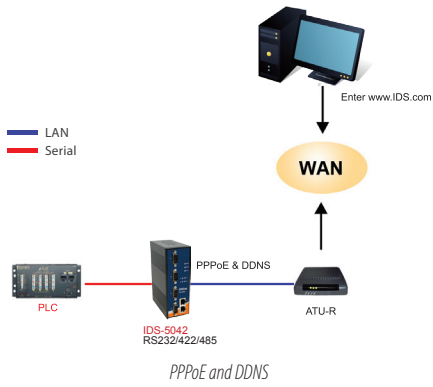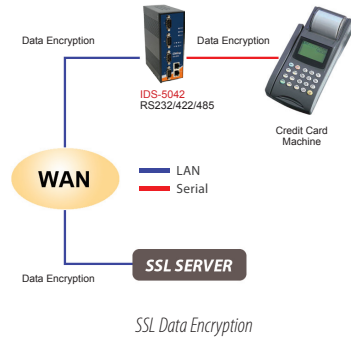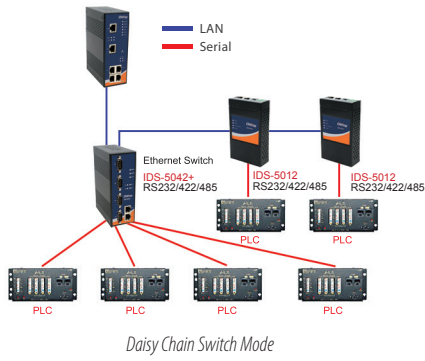RoHS | Lead Free | CE | FC

Introduction

IDS-5042 series is an innovative secure 4-port RS-232/422/485 to 2 ports LAN secure device server featuring the standard features of device server, such like TCP/IP interface and versatile operation modes: Virtual Com, Serial Tunnel, TCP Server, TCP Client, UDP. In addition, the Windows utility, DS-Tool, could configure multiple devices and set up the mappings of Virtual Com. The features of NAT Router Pass-Through, DDNS, and PPPoE make it more convenient for administrators to configure ORing's device servers through NAT router from different IP domains or Internet via modem remotely. On the other hand, IDS-5042 series can simultaneously transfer data up to 5 redundant host PCs to aovid Ethernet connection breakdown or any host PC fails. Further, IDS-5042 series features HTTPS, SSH, and SSL encryption to assure the security of critical data transmission.

IDS-5042 series supports RS-232/422/485 and provides dual redundant power inputs 12~48 VDC on terminal block to guarantee a non-stop operation. Further, IDS-5042+ features PoE P.D. (Power Device) function with 1kv isolation on the PoE port. With wide operating temperature, -10~70°C, and rugged IP-30 housing design, IDS-5042 series could operate in the harsh industrial environment. Therefore, IDS-5042 series is the best solution to the high demand of secure serial to Ethernet critical data communication.

Practical Operation

In practical operation of serial device servers, Windows utility (DS-Tool) is supported. This utility is very helpful for you to manage and monitor all of industrial device servers in the industrial network.

Multiple Host PCs

NAT Router Pass-Through

Industrial Ethernet Switch

Industrial Media Converter

Industrial Device Server

Industrial Wireless Access Point

Industrial Cellular VPN Router

Accessories

Network Management Software

3

Industrial Device Server

Daisy Chain Switch Mode

SSL Data Encryption

PPPoE and DDNS

TCP Server/Client Mode

Monitoring and Configuration interface

Dimensions
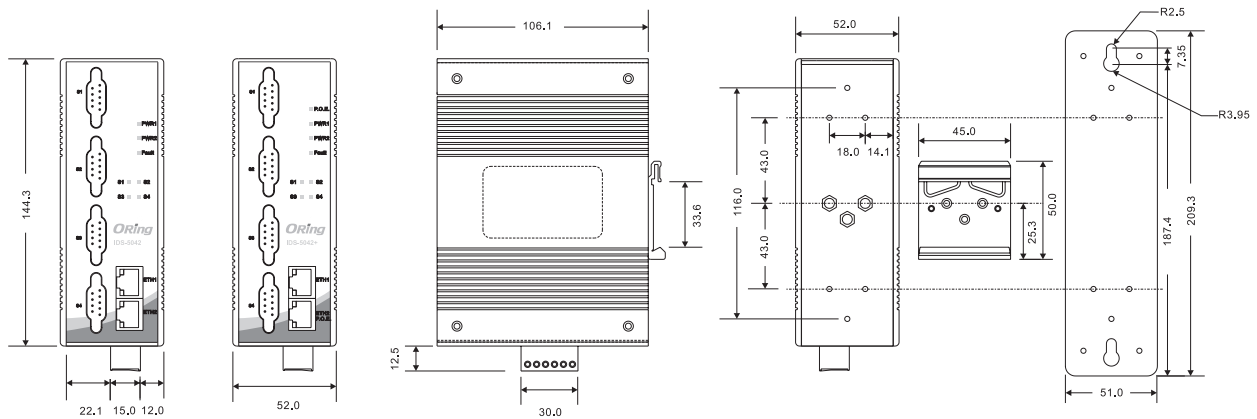
Unit=mm

Pin Assignment

DB9(male) Pin Assignment

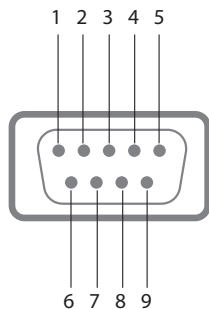| Pin #	RS-232	RS-422	RS-485 (4 wire)	RS-485 (2 wire)
1	DCD	RXD -	RXD -	-
2	RXD	RXD +	RXD +	-
3	TXD	TXD +	TXD +	DATA +
4	DTR	TXD -	TXD -	DATA -
5	GND	GND	GND	GND
6	DSR	-	-	-
7	RTS	-	-	-
8	CTS	-	-	-
9	RI	-	-	-
RS-232 mode act as DTE				

Specifications

ORing Device Server Model	IDS-5042	IDS-5042+
Physical Ports		
10/100Base-T(X) Ports in RJ45 Auto MDI/MDIX	2	
PoE Feature	-	PoE P.D. Present at ETH2 Power Device (IEEE 802.3af): IEEE 802.3af compliant input interface Power consumption: 8Watts max. Over load and short circuit protection Isolation Voltage: 1000 VDC min. Isolation Resistance : 10^8 ohms min
Serial Ports		
Connector	DB9(male) x 4	
Operation Mode	RS-232 / RS-422 / 4(2)-Wire RS-485. Which can be configured by DS-Tool	
Serial Baud Rate	110 bps to 460.8 Kbps	
Data Bits	5, 6, 7, 8	
Parity	odd, even, none, mark, space	
Stop Bits	1, 1.5, 2	
RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, RI, GND	
RS-422	Tx+,Tx-, Rx+, Rx-,GND	
RS-485 (4-wire)	Tx+,Tx-, Rx+, Rx-,GND	
RS-485 (2-wire)	Data+, Data-,GND	
Flow Control	XON/XOFF, RTS/CTS, DTR/DSR	
Network Features		
Network Protocols	ICMP, IP, TCP, UDP, DHCP, BOOTP, SSH, DNS, SNMP V1/V2c, HTTPS, SMTP, SSL, PPPoE, DDNS	
LED Indicators		
Power Indicator	PWR 1(2)(PoE) / Ready : Red On : Power is on and booting up. Red Blinking : Indicates an IP conflict, or DHCP or BOOTP server did not respond properly. Green On : Power is on and functioning Normally. Green Blinking : Located by Administrator.	
10/100Base-T(X) RJ45 Port Indicator	Green for port Link/Act at 100Mbps. Amber for port Link/Act at 10Mbps.	
Serial TX / RX LEDs	Red : Serial port is receiving data Green : Serial port is transmitting data	
Fault Indicator	Red : Indicate unexpected events occurred	

Industrial Ethernet Switch

Industrial Media Converter

Industrial Device Server

Industrial Wireless Access Point

Industrial Cellular VPN Router

Accessories

Network Management Software

Fault Contact		
Relay	Relay output to carry capacity of 1A at 24VDC	
Power		
Redundant Input Power	Dual 12~48VDC on 6-pin terminal block	Triple DC inputs, 48VDC from PoE and Dual 12~48VDC on 6-pin terminal block
Power Consumption (Typ.)	5.5 Watts	5.5 Watts
Overload Current Protection	Present	
Reverse Polarity Protection	Present	
Physical Characteristics		
Enclosure	IP-30	
Dimensions (W x D x H)	52(W) x 106.1(D) x 144.3(H) mm (2.05x4.18x5.68 inch.)	
Weight (g)	678 g	682 g
Environmental		
Storage Temperature	-40 to 85°C (-40 to 185°F)	
Operating Temperature	-10 to 70°C (14 to 158°F)	
Operating Humidity	5% to 95% Non-condensing	
Regulatory Approvals		
EMI	FCC Part 15, CISPR (EN55022) class A	
EMS	EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11	
Shock	IEC60068-2-27	
Free Fall	IEC60068-2-32	
Vibration	IEC60068-2-6	
Safety	EN60950-1	
MTBF (Hours) (MIL-HDBK-217F2, GB, GC, 25°C)	570,987	
Warranty	5 years	

Ordering Information

IDS-50 A B C

Code Definition	Serial Port Number	Ethernet Port Number	PoE Identification
Option	**- 4:** 4 ports	**- 2:** 2 ports	-**"+":** PoE P.D. present at ETH2

	Model Name	Description
Available Model	IDS-5042	Industrial 4-port secure serial to Ethernet device server with 4xRS-232/422/485 and 2x10/100Base-T(X)
	IDS-5042+	Industrial 4-port secure serial to Ethernet device server with 4xRS-232/422/485 and 2x10/100Base-T(X), 1-port PoE P.D.

Packing List

- IDS-5042 / 5042+
- DIN-Rail Kit
- Wall-mount Kit
- ORing Tool CD
- Quick Installation Guide

Optional Accessories (Can be purchased separately)

- DR-45 series, 45W DIN-Rail power supply
- DR-75 series, 75W DIN-Rail power supply
- DR-120 series, 120W DIN-Rail power supply
- SDR-240-48, 240W DIN-Rail power supply
- SDR-480-48, 480W DIN-Rail power supply
- INJ-102, High Power PoE Injector (For IDS-5042+)